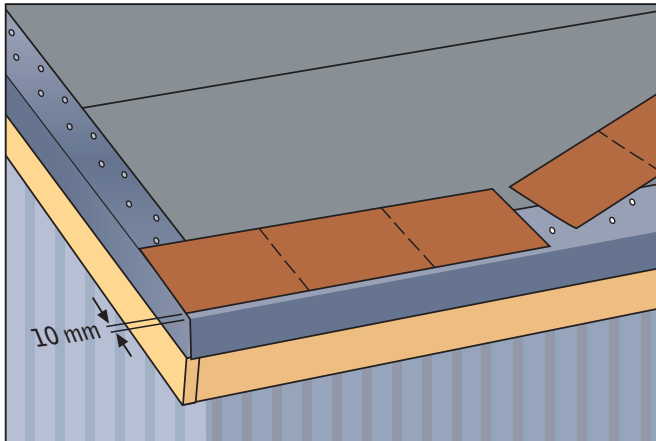


Installation of roofing shingles

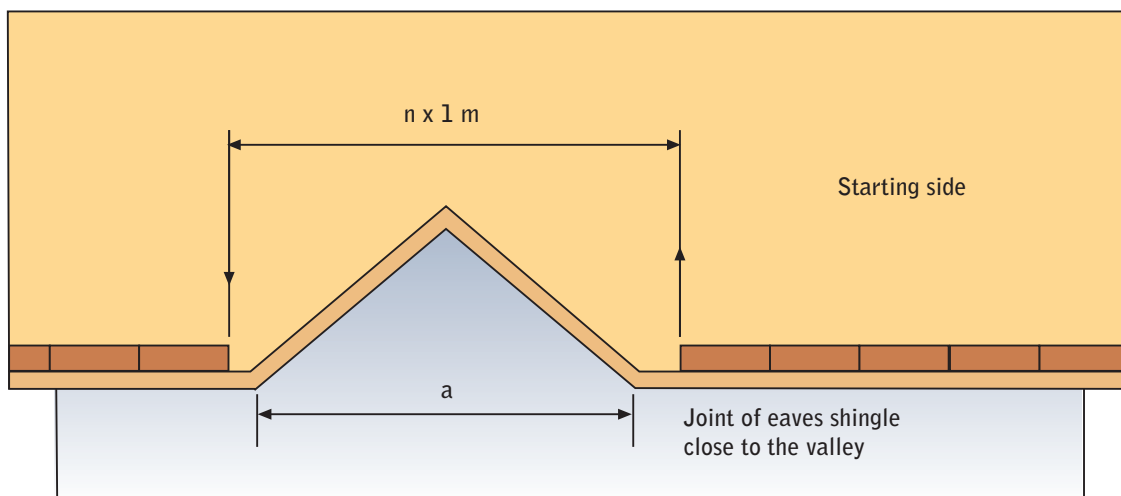
Eaves / Eaves shingles

Eaves shingles are installed over the metal drip trims. The release film over the adhesive surface is removed and the eaves shingles glue end is pressed against the metal drip trim so that some 10 mm of its slope-side surface is left visible.

- Eaves shingles are installed in sequence and the ends are butt jointed without any gaps.



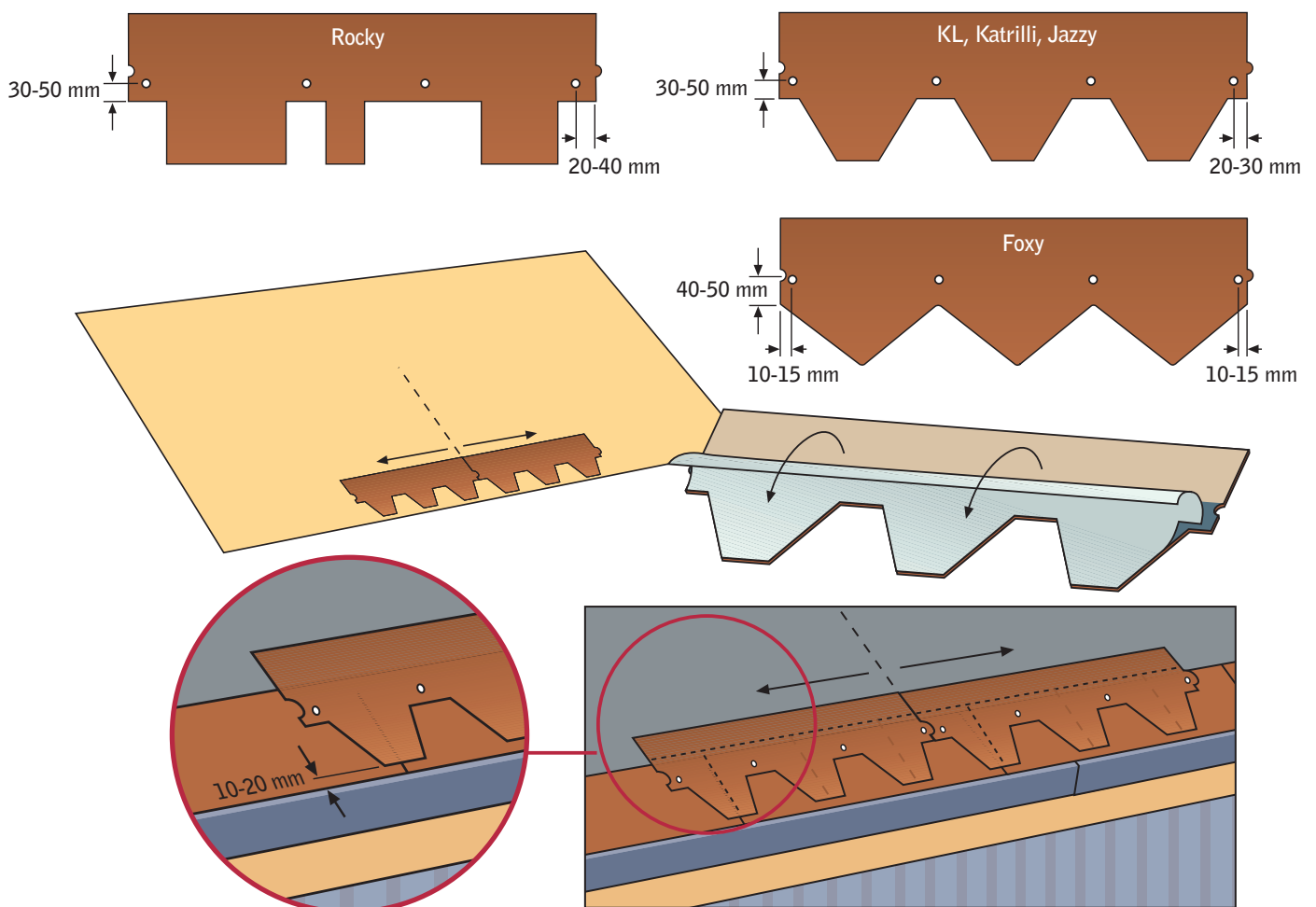
- If the eave line is not straight and unbroken (above bay windows, small verandahs with a return roof, etc.), the distance between the ends of the eaves shingles on the opposite sides of the return roof must be divisible by 1 metre (measured above the structure). This enables the correct alignment of the shingle pattern above the return roof. Usually the dimensioning has to be done by marking out perpendicular reference lines over the return roof as shown below. See separate instructions: "Working Around a Verandah or Similar Structure".



Above $n = (a+1)$ rounded up to the next full number in metres
 E.g. if $a = 3.5$ m, $n = 5$

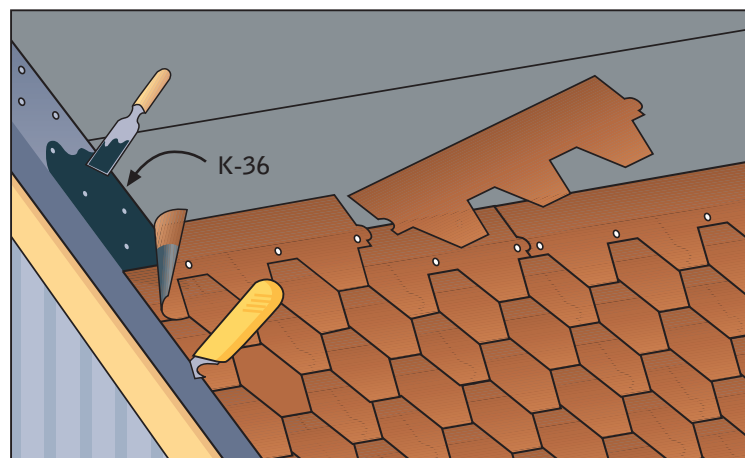
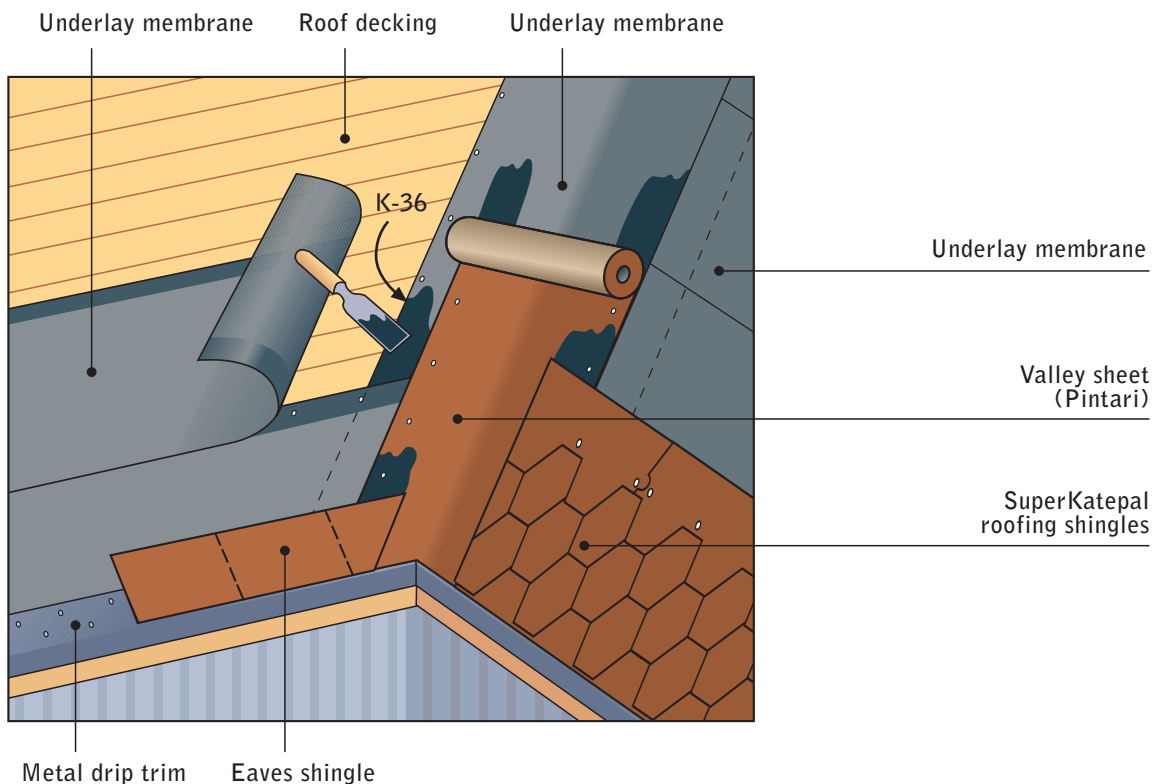
Installation of roofing shingles

- During installation always mix the shingles at least from 4 to 5 randomly chosen bundles to minimize harmful color differences.
- It is not recommended to install shingles from different production batches on the same visible roof surface. If it cannot be avoided for any reason, the shingles from different batches must be mixed and the possible color (difference) shall be checked continuously during installation.
- The installation of roofing shingles is usually started from the middle of the slope, so that the tabs of the shingles cover the end joints and perforations of the eaves shingles. The lower edge of the first row of shingles is aligned 10 – 20 mm above the bottom edge of the eaves shingles, so that the line of the eave appears clean and straight when seen at an upward angle from the ground.
- The roofing shingles are fixed with roofing nails (4 pieces / shingle) as shown in the figures below, some 30 mm (Foxy 50 mm) above the bottom of each notch along their centre lines. Roofing nails applied manually or with a pneumatic nailer may be used. Nails must penetrate through the roof deck boarding.
- If visible nail ends are not accepted on the underside or they might be harmful (play house, attic space used for some purpose, etc.), screws of suitable length and with flat and wide heads (KFR screw) may be used for fixing the roofing shingles.
- The shingles will bond to one another, but they are nailed to the substrate. The shingles must be bonded carefully to the substrate at roof valleys (to the valley sheet), at verges (to metal drip trims or to the underlay if a blocking piece is used to raise the edge) and at penetrations (to the sleeve flange).



Valleys / verges

- At valleys the ends of the shingle are cut parallel to the valley, ensuring that the shingles overlap the valley sheet by at least 150 mm.
- Usually a 100–200 mm wide area along the bottom of the valley sheet is left exposed. The ends of the shingles are bonded to the valley sheet with care so that any water accumulating in the valley can not seep under the shingles.
- It is not recommended to nail shingles to the decking on top of the valley sheet. The shingles should be glued to the valley sheet with Sealing Compound K-36, applied to a minimum width of 100 mm as measured from the mitred edge of the shingle.
- At the verges, the shingles are cut along the verge line and the ends are bonded to the metal drip trim. When an upstand is built at the verge, the ends of the shingles are bonded along the blocking piece (the chamfered surface) to the underlay, and a metal flashing of separate specification is attached on top.



Alternatives for making the upstand and attaching the metal flashing at the verge.

